connected to any model wireless phone or modem, where each wireless phone or modem has a uniquely provisioned IP-address. Stated otherwise, any wireless phone or modem can be connected to the same vehicle mounted device, and the network-based server will identify that device based on the data sent with the vehicle position data, and not on the IP-address of the wireless phone or modem. This method is referred to as indirect addressing because the network-based server indirectly identifies each vehicle mounted device by the code sent with the vehicle position data, and not the IP address that routes the message to the network-based server.

Upon power up and initialization of vehicle device **5**, processor **60** completes an initialization and hardware check of vehicle device **5**. Next, the setup parameters for vehicle device **5** are loaded from EEPROM **70**. The setup parameters include server **230** IP and Port addresses, the dial string for wireless phone **110**, the dial rate and hang time for the connection to wireless phone**110**, the sense trigger levels, the speed trigger and the time and distance parameters for position updates both in and out of wireless system **210** coverage.

After initialization and configuration of vehicle device **5**, processor **60** checks for stored positions and then starts to process GPS data from GPS receiver **40**. Next, processor **60** determines if a phone connection should be established to wireless phone **110**. If position data is stored or a connection to wireless phone **110** is required based on setup parameters, processor **60** attempts to make a connection to wireless phone **110**. If wireless phone **110** is not present, processor **60** returns to the process of reading GPS data from GPS receiver **40**. With wireless phone **110** not present and the process of reading GPS data complete, processor **60** checks if position triggers have occurred and if so, stores that GPS position in EEPROM **70**. If no position triggers have occurred, processor **60** returns to reading and processing GPS data.

If wireless phone **110** is present, processor **60** will establish a PPP connection with wireless phone **110**. After a PPP connection is established with wireless phone **110**, processor **60** will check and process any data from wireless phone **110**. If a data message is received from wireless phone **110** via Server **230**, processor **60** will process data message based on the type of data message. For a Poll message, processor **60** will send the current GPS position of the vehicle. For a Configure message, processor **60** will load the new configuration message which may include Server **230** IP and Port address, dial rate, hang time, speed trigger or time and distance reporting rates. For a Configure Inquiry message, processor **60** will send the current configuration requested which may include Server **230** IP and Port address, dial rate, hang time, speed trigger or time and distance reporting rates. After processing the received data message, processor **60** returns to read and process GPS data.

If no data message is received from wireless phone **110** while vehicle device **5** is connected, processor **60** reads and processes GPS data from GPS receiver **40**. After processor **60** processes GPS data, processor **60** checks if there are stored GPS positions or if GPS positions are queued based on setup parameters. If GPS positions are stored or queued, processor **60** sends the positions via wireless phone **110** to Server **230** based on IP and Port addresses in the setup parameters. After sending GPS positions, processor **60** checks if vehicle device **5** should stay connected to wireless phone **110**. Based on setup parameters, processor **60** will close the phone connection if appropriate or continue to stay connected and process positions triggers. If position triggers occur, processor **60** will return to read and process GPS Data and then send a GPS position. If position triggers have not occurred, processor **60** will return to read and process data from wireless phone **110**.

What is claimed is:

1. A vehicle mounted device configured to transmit real time vehicle position data from said device to a network-based server for fleet management purposes using a wireless communication system in communication with said network-based server and with said device, comprising:

a first processing module carried by a vehicle for computing real time vehicle position data reflecting real time geographic location of said vehicle, said first processing module including a positioning system receiver for receiving position signals from at least one source remote from said vehicle and for processing said position signals into said real time vehicle position data representing the date, time, and position of said vehicle;

a second processing module for storing said real time vehicle position data and for controlling transmission of said real time vehicle position data to said network-based server, said second processing module including data storage means for storing said real time vehicle position data, wireless communication system connecting means for transmitting data to said wireless communication system, and control means for controlling transmission of said real time vehicle position data to said network-based server, said control means being configured to:

receive said real time vehicle position data from said first processing module,

establish a wireless connection to said network-based server for a predetermined period of duration,

detect the establishment of a wireless connection,

transmit said real time vehicle position data to said network-based server during periods when said connection is established,

store said real time vehicle position data in said data storage means when said connection is not established,

reestablish said wireless connection to said network-based server following any period that said wireless connection is broken, and

retrieve said stored real time vehicle position data from said data storage means following reestablishment of said wireless connection, and thereafter transmit said stored real time vehicle position data to said network-based server,

said wireless communication system connecting means including a short-range wireless chipset and built-in antenna housed within said second processing module and a wireless telephone having a compatible short-range wireless chipset and antenna housed within said wireless telephone, wherein said short-range wireless chipset is configured for wireless communication between said second processing module and said wireless telephone and wherein said wireless telephone is configured for wireless communication with said wireless communication system;

a power supply means for powering said first processing module and said second processing module;

a first conductor means connected to said power supply means and to said second processing module, said first conductor means being configured to transmit power from said power supply means to said second processing module; and

a second conductor means connected to said first processing module and to said second processing module, said

second conductor means being configured to transmit said vehicle position data from said first processing module to said second processing module and being further configured to transmit power from said second processing module to said first processing module;

whereby said vehicle mounted device, in conjunction with said network-based server, enables any one or more of a plurality of fleet managers to simultaneously access said network-based server via a network service provider and thereafter monitor the current and historical real time vehicle position data corresponding to a fleet of vehicles designated to be monitored by a corresponding one of said any one or more of a plurality of fleet managers.

2. The vehicle mounted device of claim 1 further including event sensor means attached to said vehicle, wherein said second processing module further includes at least one sensory input connected to said control means, said at least one sensory input being connected to said event sensor means for detecting the occurrence of an event involving the vehicle and transmitting information regarding said event to said sensory input, said event sensor means being positioned on said vehicle.

3. The vehicle mounted device of claim 2, wherein said first conductor means has a first power cable, and wherein said second conductor means has a data bus and a second power cable.

4. The vehicle mounted device of claim 3, wherein said control means is selected from the group consisting of a microcontroller, a microprocessor and an ASIC device, wherein said data storage means is an electrically erasable programmable memory, wherein said positioning system receiver is a global positioning system ("GPS") receiver, and wherein said at least one source remote from said vehicle is a plurality of GPS satellites.

5. The vehicle mounted device of claim 4, wherein said wireless communication system is selected from the group consisting of wireless LAN/WAN, AMPS, Satellite, iDEN™, TDMA, CDMA, CDPD and GSM infrastructures.

6. The vehicle mounted device of claim 5, wherein said control means is further configured to initialize all memory and data ports and said storage means upon start-up of said vehicle mounted device, enable of interrupts and check for the presence and functionality of all hardware and operational modes of said vehicle mounted device, load operational setup parameters stored in said storage means and check for the presence of real time vehicle position data stored in said storage means.

7. The vehicle mounted device of claim 6, wherein said network-based server is a computer and wherein said network is either the Internet network or Intranet network.

8. The vehicle mounted device of claim 7, wherein said first module is positioned within a first housing, wherein said second module is positioned within a second housing, and wherein said power supply means is selected from the group consisting of a plug configured for insertion into a vehicle cigarette lighter, a wire connected to a fuse panel terminal, a wire connected to a vehicle storage battery, and a battery.

9. The vehicle mounted device of claim 8, further including receiving means for receiving incoming signals transmitted by said network-based server, said incoming signals including any one or more of ICMP ping messages, configuration messages, or poll messages.

10. The vehicle mounted device of claim 9 wherein said control means is further configured to update said setup parameters in response to receiving a configuration message, wherein said control means is further configured to immediately transmit said vehicle position data to said network-based server in response to receiving a poll message.

11. The vehicle mounted device of claim 10, wherein said control means is further configured to transmit said vehicle position data to said network-based server at predetermined intervals, said intervals being selected from the group consisting of distance intervals and time intervals.

12. The vehicle mounted device of claim 11, wherein said control means is further configured to transmit said vehicle position data to said network-based server upon the occurrence of predetermined triggers, said triggers being selected from the group consisting of speed triggers, vehicle start triggers, vehicle stop triggers and sensory input triggers.

13. The vehicle mounted device of claim 12, wherein said control means is further configured to establish a wireless connection to said network based server for predetermined time intervals.

14. The vehicle mounted device of claim 1, wherein said control means is further configured to add an identification code, that uniquely identifies the vehicle mounted device, to said vehicle position data and to transmit said identification code along with said vehicle position data.

15. A method for transmitting vehicle position data to a network-based server for fleet management purposes using a vehicle position locating device carried by a vehicle located remotely from said server and a wireless communication system in communication with both said network-based server and said device, said method comprising the steps:

establishing a wireless connection between the vehicle position locating device and the network-based server located remote from said vehicle position locating device;

receiving position signals by said vehicle position locating device from at least one source remote from said vehicle and processing said position signals into vehicle position data representing date and time, and the position, velocity and direction of travel of said vehicle;

detecting whether said wireless connection is established;

transmitting said vehicle position data to said network-based server during periods when said wireless connection is established;

storing said vehicle position data to a storage device when said wireless connection is not established;

reestablishing said wireless connection following any period that said wireless connection is broken; and

retrieving said stored vehicle position data from said storage device following reestablishment of said wireless connection, and thereafter transmitting said stored vehicle position data to said network-based server;

whereby said vehicle mounted device, in conjunction with said network-based server, enables any one or more of a plurality of fleet managers to simultaneously access said network-based server via a network service provider and thereafter monitor the current and historical real time vehicle position data corresponding to a fleet of vehicles designated to be monitored by a corresponding one of said any one or more of a plurality of fleet managers;

wherein said vehicle position locating device comprises:

a first processing module carried by a vehicle for computing real time vehicle position data reflecting real time geographic location of said vehicle, said first processing module including a positioning system receiver for receiving position signals from at

least one source remote from said vehicle and for processing said position signals into said real time vehicle position data representing the date, time, and position of said vehicle;

a second processing module for storing said real time vehicle position data and for controlling transmission of said real time vehicle position data to said network-based server, said second processing module including data storage means for storing said real time vehicle position data, wireless communication system connecting means for transmitting data to said wireless communication system, and control means for controlling transmission of said real time vehicle position data to said network-based server, said control means being configured to:

receive said real time vehicle position data from said first processing module,

establish a wireless connection to said network-based server for a predetermined period of duration,

detect the establishment of a wireless connection,

transmit said real time vehicle position data to said network-based server during periods when said connection is established,

store said real time vehicle position data in said data storage means when said connection is not established,

reestablish said wireless connection to said network-based server following any period that said wireless connection is broken, and

retrieve said stored real time vehicle position data from said data storage means following reestablishment of said wireless connection, and thereafter transmit said stored real time vehicle position data to said network-based server,

said wireless communication system connecting means including a short-range wireless chipset and built-in antenna housed within said second processing module and a wireless telephone having a compatible short-range wireless chipset and antenna housed within said wireless telephone, wherein said short-range wireless chipset is configured for wireless communication between said second processing module and said wireless telephone and wherein said wireless telephone is configured for wireless communication with said wireless communication system;

a power supply means for powering said first processing module and said second processing module;

a first conductor means connected to said power supply means and to said second processing module, said first conductor means being configured to transmit power from said power supply means to said second processing module; and

a second conductor means connected to said first processing module and to said second processing module, said second conductor means being configured to transmit said vehicle position data from said first processing module to said second processing module and being further configured to transmit power from said second processing module to said first processing module.

16. The method of claim **15**, wherein said at least one source is a plurality of GPS satellites.

17. The method of claim **16**, wherein said network-based server is a computer and wherein said network is the Internet.

18. The method of claim **15**, wherein said method further includes addition of an identification code, that uniquely identifies the vehicle mounted device, to said vehicle position data and to transmit said identification code along with said vehicle position data.

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